

WHAT IS CLAIMED IS:

1. A method for controlling power of radio links comprising:
determining reliability of a plurality of radio links according to a quality of each radio link; and
setting a combined transmit power control command value based on the determined reliability of each of the plurality of radio links.
2. The method of claim 1, wherein determining the reliability comprises:
measuring the quality of each of the plurality of radio links; and
comparing the measured quality of each radio link with a predetermined reference value.
3. The method of claim 2, wherein when the quality of one radio link is greater than the reference value, determining the reliability includes setting the reliability of the one radio link to 1.
4. The method of claim 2, wherein when the quality of one radio link is smaller than the reference value, determining the reliability includes setting the reliability of the one radio link to 0.
5. The method of claim 1, wherein the quality of each radio link is determined based on a signal to interference ratio (E_b/N_o).

6. The method of claim 1, wherein the reliability of each radio link may be represented as a transmit power control command value (TPC_cmd[rl_idx]) of each radio link.

7. The method of claim 1, wherein determining the reliability of each radio link is repeated until the reliability of all the radio links is decided.

8. The method of claim 1, wherein when the reliability of the radio links is 1, setting the combined transmit power control command value includes setting the combined transmit power control command value as 1.

9. The method of claim 8, further comprising increasing a transmit power based on the set combined transmit power control command value.

10. The method of claim 1, wherein when the reliability of the radio links is 0, setting the combined transmit power control command value includes setting the combined transmit power control command value as -1.

11. The method of claim 10, further comprising increasing a transmit power based on the set combined transmit power control command value.

12. A method for controlling power of radio links in a mobile communication system comprising:

- measuring a quality of a radio link;
- setting a reliability of the radio link based on the measured quality of the radio link;
- repeating measuring the quality of the radio link and setting the reliability of the radio link until the reliability of all the radio links are set; and
- determining a combined transmit power control command value based on the reliability of each radio link.

13. The method of claim 12, wherein the quality of each radio link is determined based on a signal to interference ratio (E_b/N_o).

14. The method of claim 12, wherein the reliability of each radio link corresponds to a transmit power control command value of each radio link.

15. The method of claim 12, wherein setting the reliability of each radio link comprises:

- comparing the measured quality of the radio link with a predetermined reference value; and
- setting the reliability of each radio link based on the comparison.

16. The method of claim 15, wherein when the quality of each radio link is greater than the reference value, the reliability of each radio link is 1.

17. The method of claim 15, wherein when the quality of each radio link is smaller than the reference value, the reliability of each radio link is 0.

18. The method of claim 12, wherein when the reliability of all the radio links is 1, the combined transmit power control command value is determined to be 1.

19. The method of claim 18, further comprising increasing a transmit power based on the determined combined transmit power control command value.

20. The method of claim 12, wherein when the reliability of any of the radio links is 0, the combined transmit power control command value is determined to be -1.

21. The method of claim 20, further comprising decreasing a transmit power based on the determined transmit power control command value.

22. A mobile communication system comprising:

a processor device to determine a reliability of each of a plurality of radio links based on quality of each of the links and to set a transmit power control value based on the determined reliability of each radio link; and

a transmitting device to transmit signals based on the set transmit power control value.

23. The mobile communication device of claim 22, wherein the processor device determines the reliability by measuring the quality of each radio link and comparing the measured quality of each radio link with a predetermined reference value.

24. The mobile communication device of claim 22, wherein when the quality of one radio link is greater than the reference value, the processor device sets the reliability of the one radio link to 1.

25. The mobile communication device of claim 22, wherein when the quality of one radio link is smaller than the reference value, the processor device sets the reliability of the one radio link to 0.

26. The mobile communication device of claim 22, wherein the processor device determines the quality of each radio link based on a signal to interference ratio (E_b/N_o).

27. The mobile communication device of claim 22, wherein the processor device repeats determining the reliability of each radio link until the reliability of the radio links of all the radio links is decided.

28. The mobile communication device of claim 22, wherein when the reliability of the radio links is 1, the processor device sets the combined transmit power control command value as 1.

29. The mobile communication device of claim 28, wherein the processor device increases a transmit power of the transmitting device based on the set transmit power control value.

30. The mobile communication device of claim 22, wherein when the reliability of the radio links is 0, the processor device sets the combined transmit power control command value as -1.

31. The mobile communication device of claim 30, wherein the processor device decreases a transmit power of the transmitting device based on the set transmit power control value.